UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,127	01/08/2002	Matt Richard Hogstrom	RSW920010133US1	4519

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EXAMINER
RAMPURIA, SATISH

ART UNIT	PAPER NUMBER
2191	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,8,9,11-15,18,19,21 and 22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8,9,11-15,18,19,21 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Response to Amendment

1.   This action is in response to the amendment received on Sep 13, 2005.

2.   Claims cancelled by the Applicant: 6, 7, 10, 16, 17 and 20.

3.   Claims amended by the Applicant: 1, 4, 8, 9, 11, 14, 18, 19, 21 and 22.

4.   Claims pending in the application: 1-5, 8-9, 11-15, 18-19, and 21-22.

Response to Arguments

5.   Applicant's arguments with respect to claims have been considered but they are
not persuasive.

In the remarks, the applicant has argued that:

(i)   Santosuosso does not teach inserting a flag into a class, Santosuosso teaches
marking an entry in an object table to indicate that the object identified by the
entry is immutable. Marking an entry that is associated with an object is not
the same as inserting a flag into a class itself.

(ii)   Applicants' repeatedly argue that Santosuosso does not teach a request to
invoke a server application; Santosuosso does not anticipate Applicant's
claims.

Examiner's response:

(i)   In response to Applicants' argument, Santosuosso does teach inserting flag
into a class by way of marking the code (col. 3, lines 20-35 "...a method of
object-oriented processing which removes the creation of constant or
immutable objects from method calls by elevating those objects to a static

class variable… elevated objects may correspond to a fixed entry in an object table and each of the respective fixed entries are marked as being immune from garbage collection") and as indicated by the Applicants' (Remarks, page 8). However, according to Microsoft Computer Dictionary (see the attached document), when flag is present in the code it means to mark something within the code. Therefore, the rejection is proper and maintained herein.

(ii)   In response to Applicants' argument, Santosuosso teaches that his system is operable on any number of network and computers (col. 4, lines 20-30). Where Santosuosso does not specifically states invoking a server application, however, since Santosuosso system is operable on a server and shows immutable objects are removed during the compile time which is done on any number of network connection to other computers it would be inherent that a request is made to invoke the server application, otherwise, Santosuosso system would in inoperative if the request not received to invoke the server application. Therefore, the rejection is proper and maintained herein.

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the mailing date of this final action.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the
United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by
another filed in the United States before the invention by the applicant for patent, except that an international
application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an
application filed in the United States only if the international application designated the United States and was
published under Article 21(2) of such treaty in the English language.

8.   Claims 1-5, 8-9, 11-15, 18-19, and 21-22 are rejected under 35 U.S.C. 102(e) as

being anticipated by US Patent No. 6,701,520 to Santosuosso et al. (hereinafter called

Santosuosso).

Per claim 1:

Santosuosso disclose:

- loading a class (FIG. 3, element 220 and related discussion);

- inserting an immutability flag into the class (col. 5, lines 37-40 "Immutable or

  constant objects are objects whose internal value can be set only at creation time

  and a static class variable is one in which only one copy exists for all objects of

  that class");

- determining whether the class is immutable (col. 5, lines 33-34 "Java compiler

  identifies any immutable objects");

- setting the immutability flag if the class is immutable (col. 5, lines 33-36 "Java compiler identifies any immutable objects... and changes or "elevates" them to equivalent static class variables");

- examining an argument in the request (see FIG. 3 and related discussion);

- if the argument is an object, identifies the class that describes the object (col. 5, lines 33-34 "Java compiler identifies any immutable objects);

- determine whether an immutability flag that is inserted into the class that describes that object is set, wherein the object is immutable if the immutability flag inserted into the class that describes the object is set (col. 5, lines 33-34 "Java compiler identifies any immutable objects");

- if the object is immutable, passing a reference to the object rather than a clone of the object (col. 5, lines 10-15 "...object goes out of scope... means that the object is not referenced in a stack... no other object references the object...").

- if the object is mutable (col. 5, lines 33-34 "Java compiler identifies any immutable objects"), passing a copy of the object to the server application (col. 3, lines 20-25 "A private mutable object variable may also be elevated").

Although, Santosuosso teach provide removing the immutable objects during the compile time. Santosuosso is silent on receiving a request to invoke a server application. However, this feature deemed to be inherent to the Santosuosso system, Santosuosso system shows immutable objects are removed during the compile time which is done on any number of network connection to other computers, col. 4, lines 21-30. Santosuosso

system would be in inoperative if the request not received to invoke the server

application.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Santosuosso disclose:

- parsing the bytecode of the class (FIG. 3, Java compiler).

Per claim 3:

The rejection of claim 2 is incorporated, and further, Santosuosso disclose:

- determining whether the class can be modified after it is created (col. 5, lines 42-

    45 "compiler determines that the values of the variables cannot be modified at

    run-time").

Per claim 4:

The rejection of claim 3 is incorporated, and further, Santosuosso disclose:

- whether the class can be modified comprises determining whether all properties

    of the object are marked private (col. 5, lines 1-10).

Per claim 5:

The rejection of claim 3 is incorporated, and further, Santosuosso disclose:

- whether the class can be modified comprises determining whether there are any

    non-private methods that update properties of the class (col. 5, lines 25-31).

Per claim 8:

The rejection of claim 6 is incorporated, and further, Santosuosso disclose:

- receiving, from a caller, a request to invoke an object (col. 5, lines 19-25

  "constant is called multiple times or if separate threads call the method, the object

  is created only once no matter how many times the method is invoked");

- examining an argument in the request (see FIG. 3 and related discussion);

- if the argument is an object, determining whether the object is immutable (col. 5,

  lines 33-34 "Java compiler identifies any immutable objects); and

- if the object is immutable, passing a reference to the object rather than a clone of

  the object and does not include a copy of the object (col. 5, lines 10-15 "...object

  goes out of scope... means that the object is not referenced in a stack... no other

  object references the object..."); and

- if the object is mutable (col. 5, lines 33-34 "Java compiler identifies any

  immutable objects"), passing a copy of the object to the server application (col. 3,

  lines 20-25 "A private mutable object variable may also be elevated").

Per claim 9:

The rejection of claim 8 is incorporated, and further, Santosuosso disclose:

- determining whether an immutability flag for the object is set (col. 5, lines 33-34

  "Java compiler identifies any immutable objects").

Claims 11-15 are the apparatus claims corresponding to method claims 1-5 respectively, and rejected under the same rational set forth in connection with the rejection of claims 1-5 respectively, above.

Claims 18 and 19 are the apparatus claims corresponding to method claims 8 and 9 respectively, and rejected under the same rational set forth in connection with the rejection of claims 8 and 9 respectively, above.

Claims 21-22 are the computer product claims corresponding to method claims 1 and 8 respectively, and rejected under the same rational set forth in connection with the rejection of claims 1 and 8 respectively, above.
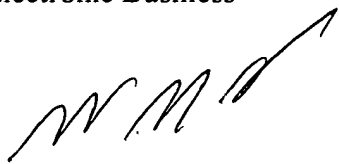
Conclusion

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:00 am to 4:30 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wei Y. Zhen** can be reached on **(571) 272-3708**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

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11/14/2005

WEI Y. ZHEN
PRIMARY EXAMINER